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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY.



JACK RABBIT CONTROL.

Various agencies, such as natural enemies, disease, severe winters, hounding, trapping, and shooting are instrumental in the destruction of jack rabbits, but driving and poisoning have proved to be the most generally applicable, economical, and certain means at present known of destroying these pests. While the methods presented herewith are not to be regarded as perfected or as the final word on the subject, they are the result of several years' careful experimental work by the Biological Survey in western States, where severe damage has been wrought by jack-rabbit infestation.

Of the various ways of poisoning, the preparations mentioned in Department leaflets, in addition to their effectiveness, involve the least possible danger to man, domestic stock, and valuable wild birds and animals. Such baits as oats, barley, wheat, spelts, rye, alfalfa, grain heads, bran, cabbages, carrots, apples, potatoes, raisins, prunes, oat sprouts, salt, water, and melons, have been experimented with. Tests with strychnine, Paris green, arsenic trioxide, and cyanide of potassium prove strychnine to be by far the best and most economical poison to use. The most effective and practicable poisoned baits for jack rabbits are alfalfa leaves, grain heads, salt, oats, and melons.

During the summer months poisoned watermelon, salt, and apples have given good results. It is possible that the presence of alkali or soda deposits decreases the value of poisoned salt, although cooperating ranchmen report using it successfully in many cases in the vicinity of alkali lakes. Before extensive salt poisoning is undertaken it is well to try a few test cases to determine its effectiveness in the particular locality under consideration. When rabbits are feeding on succulent green crops, such as growing grain or alfalfa, there is considerable craving for salt. The GREATEST CARE should be taken in using the poisoned salt because of the eagerness with which salt is sought by domestic animals.

After the range has dried up and the crops have been harvested, equally successful poisoning has been done with poisoned oats, alfalfa leaves, and grain heads, and these may be distributed in fields from which stock is excluded. Before winter sets in, poisoned alfalfa leaves and grain heads seem to be more successful than oats.

In winter poisoning, the use of substantial poison corrals, within which poison is exposed, is strongly recommended. While poisoning on trails is frequently successful, the attendant danger to livestock should lead to its discontinuance in favor of the corrals. Corrals should be erected where rabbits are known to be feeding. Such feeding grounds may be established by pre-baiting with clean alfalfa hay for a few nights preceding poisoning, thus getting the rabbits accustomed to feeding on the spot on which it is planned to

erect a corral. When visits to the corrals in the evenings show the rabbits to be feeding, poison may be exposed.

Portable corrals, which may be moved from one feeding ground to another, have given better success than the permanent structures. Where permanent stock-proof corrals are used, it is recommended that they be about 40 feet square. This gives ample space in which to poison, and poison is not likely to be blown out of a corral of this size. In a locality where rabbits are taking two or three poison preparations readily, it is a good plan to change the baits every few days. For example, if alfalfa is used for several days, change to grain leads until their effectiveness falls off, then expose alfalfa again. This method has increased the number of rabbits killed in experimental work.

Fenced alfalfa and grain stacks on which rabbits are feeding make excellent bait corrals within which to expose poison. Their location is usually known to the rabbits, and stacks are frequently badly undermined by the pests. The effectiveness of poisoned baits in stack yards will be increased by wrapping the bottom of the stack with rabbit-proof netting. Preventing rabbits in this way from feeding on the stack leaves them only the poisoned bait.

Where repeated poisoning operations have been carried on for an extended period, the rabbits sometimes become wary and cease to take the baits. They have also been known to take poison readily for a week or more and then to refuse it for several days. This is apparently caused by food or weather conditions in the brush, not yet satisfactorily accounted for. These conditions, combined with the erratic habits of the rabbits, play such an important part in poisoning campaigns that continuous success can not be expected when these factors are ignored. Poisoning operations, to be conducted successfully, must be in harmony with these factors. The local situation must be thoroughly studied by those using poison. Poisons effective in one locality may fail in another, due to the causes given above.

The careful distributor of poison will not expose it on windy, stormy nights when rabbits remain in the brush, but will visit the spots on the evening preceding the poisoning and make sure the rabbits are feeding on the baits. Tracks on snow are a poor indication of the number of rabbits present, for in one night ten rabbits can so track up a small area that the uninitiated would estimate that at least seventy-five had visited the spot. A large proportion of the rabbits which will visit the corrals on a certain night will be feeding there about dusk.

GREAT CARE should be exercised to prevent accidents, and all containers, equipment, and utensils used in the preparation of poison should be kept plainly labeled and out of the reach of children, irresponsible persons, and livestock.